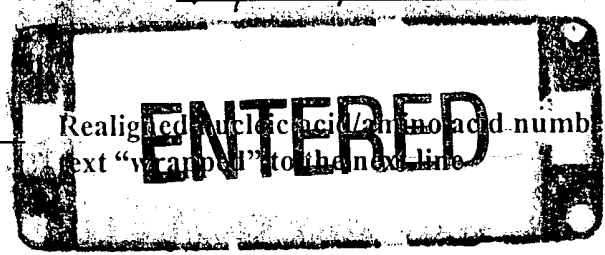


1Fwo

CRF Errors Edited by the STIC Systems Branch

Serial Number: 10/650, 274A

CRF Edit Date: 8/3/04
Edited by: AZ



Realigned nucleic acid/nucleic acid numbers/text in cases where the sequence text "wrapped" to the next line

___ Corrected the SEQ ID NO. Sequence numbers edited were:

___ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

___ Deleted: ___ invalid beginning/end-of-file text ; ___ page numbers

___ Inserted mandatory headings/numeric identifiers, specifically:

___ Moved responses to same line as heading/numeric identifier, specifically:

___ Other:



IFWO

RAW SEQUENCE LISTING

DATE: 08/03/2004

PATENT APPLICATION: US/10/650,274A

TIME: 16:55:15

Input Set : A:\650274A.chg.txt

Output Set: N:\CRF4\08032004\J650274A.raw

4 <110> APPLICANT: GLENN, MATTHEW
 5 HAVUKKALA, ILKKA J
 6 LUBBERS, MARK WILLIAM
 7 DEKKER, JAMES
 9 <120> TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES,
 10 MATERIALS INCORPORATING THEM, AND METHODS FOR USING
 11 THEM.
 13 <130> FILE REFERENCE: 11000.1073
 > 15 <140> CURRENT APPLICATION NUMBER: US/10/650,274A
 > 15 <141> CURRENT FILING DATE: 2003-08-28
 15 <160> NUMBER OF SEQ ID NOS: 187
 17 <170> SOFTWARE: FASTSEQ FOR WINDOWS VERSION 4.0
 19 <210> SEQ ID NO: 1
 20 <211> LENGTH: 10889
 21 <212> TYPE: DNA
 22 <213> ORGANISM: LACTOBACILLUS RHAMNOSUS
 24 <400> SEQUENCE: 1

P.6

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27	agtttaattc aactgattgc tacagttatc atcaaaccac tattaaccgt ggggacaggc	180
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41	aatgagcgtc aaatggcgtc tgcggcataa acagtataag taaattgtga cgaaaaaagg	1020
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56	cagattttaa	acggctttat	gatcggttg	aacatcttat	ggtagatgtg	ggtgagccgc	1920
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DATE: 08/03/2004

PATENT APPLICATION: US/10/650,274A

TIME: 16:55:15

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RAW SEQUENCE LISTING

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Output Set: N:\CRF4\08032004\J650274A.raw

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197	ctcaggagga	agattatgga	gttatcagag	tatccgactt	ttacagttat	tatgcgcggt	10380

RAW SEQUENCE LISTING

DATE: 08/03/2004

PATENT APPLICATION: US/10/650,274A

TIME: 16:55:15

Input Set : A:\650274A.chg.txt

Output Set: N:\CRF4\08032004\J650274A.raw

```

198 tatacgccctg aacaggctga tgccattatg caggcgatgg ctggggttga aaatcaattt 10440
199 ggtggtgaag tgacgatgaa tacgccgat gcactggaca ttatcgaaga aggtaatgcg 10500
200 cagtacgggg accgaatcaa gatcggcgcc gggacggtga caacgctgac cgaggctcaa 10560
201 gacgctatag ctaaagggtgc gaaatttatg ctaagtccaa ttgagtttac ggacgacatt 10620
202 ttgacctatg ccaaacagca tggagtcac accgtgccgg ctgctatgac accgactgaa 10680
203 gttcatacga tgtttgaaaa aggtgcagat attgtcaaag tctttccggc aacgacagtc 10740
204 gggtcaggat tctttaaagc tattcaggca ccacttgga aattaccact gatggcagtt 10800
205 ggagggggtt cgatctgggc gtggatggct ggcgtttgga tgctcgccgat gagctgactg 10860
206 acgactttat tcatcaaatt cggacgaca 10889

```

210 <210> SEQ ID NO: 2

211 <211> LENGTH: 5731

212 <212> TYPE: DNA

213 <213> ORGANISM: LACTOBACILLUS RHAMNOSUS

215 <220> FEATURE:

216 <221> NAME/KEY: MISC_FEATURE

217 <222> LOCATION: (1)...(5731)

218 <223> OTHER INFORMATION: N = A,T,C OR G

220 <400> SEQUENCE: 2

```

C--> 221 aaaggattga tggctttcga atggatgtta tcaatctgat ttcaaagcct gatgtttttg 60
222 ctgatgatcc acaccttttg gaacagccaa acggtaaactc gctgggctta attgccaatg 120
223 gtccgcacgt gcacgaatac ttacgtgcga tgaacaaggc ggttttgtcc aagcacgac 180
224 ttatgacagt tggcgaggca cccggcggtta cgcccgcctt ggcacttcaa tatactggtt 240
225 tcgatcgcca cgagcttgaa atggtcttcc agtttaaaca tgtttggcctt gataacgatc 300
226 cacaattcgg caagtggta ctaaaccatc ctacgttgac cgatcagtga aacctttaaa 360
227 tcgcaattct ggaactttct ttttaactga atcatctatt ttcgccatag tccccaccat 420
228 tttcttggtc ttctatcctt ttttgaactt tgatttggtc ctgcaaattt tccaacttct 480
229 ctttaagagc gttcacttca tctttatatt gattgtctaa gtgtttgaat tctgtttcct 540
230 gtgagggcat tttgagaact ttttaagttc ggtgcaaatt ttctcgctg acttgaattt 600
231 agtatactgg gtgccaagaa acgaaggatt gcgcgcgatga atcactttaa aggacccac 660
232 tttcaaaagg acatcatctt agtagccggt ggctactatt tcagatttcg tctccacttt 720
233 cgtgccatcg ttgaatgctt caggatccgc aaacgcaccg gctgcttgga ggcgcagttc 780
234 tgteccactta cgacgtcacc gcgcaaggca acgttttggc cctagccatt caacacggcc 840
235 tcacgttgga agacttagct gaagccgact tcttcttcca gccaggattc gaccggcaat 900
236 ggagcctact caacctcgcc gctcaacacg cactaggtga accacgcttc tagtcagttg 960
237 ctagtcctac tgcaacattg tttcctcttt taatcatcag ccattgcaaaa agaccaagct 1020
238 ttcactgatt tagtgagctt ggtctttttt gagtgagegt gagccagccc ggtctgaaac 1080
239 cggagtgtaa gcggccttaa ccgtgatggc cgctcttttg ccattgcgct aaagtcctta 1140
240 caccgagatc tctgcgccag tgaacgcgtt atgacaagcg tgaactggcc cgcttagaga 1200
241 tctgcacgat gatggccatg aagggttaaag acgcacagcc ttatgccgca tactccggt 1260
242 caccttcacg taacttacca tccaaaagcg taaacttcg atcagcaaac ttttcaaggc 1320
243 gaacatcggt ggtcacgaca acaatcgctt tgttatgctt gtgggcaaga tcagccaaca 1380
244 actggccaac cactgccacc cgcgggctat cgagtgccgc agtcggttca tccgccagta 1440
245 caatcgccgg atccggataa agcgcgccgc caatcgctac acgctgggtt tgaccgctg 1500
246 ataacgatgc cggatactga ttgaccaagt tggcaatacc cagatcatcc aataactcag 1560
247 aaagggtgct tcgactaagg tttccttttg gtttgatttt atcgaccagc ttaaactgct 1620
248 caccgactgt taaatacggc accaagttat aagactgcag aacaaagccg attttgtcta 1680
249 accgcaacgc atcccgcgct ttaccagaaa gttgttccag attttccccg gctgtggtca 1740
250 caatcccgtc agtcggggtt tgaatcccc cggcgatggt taggaatgtg ctttttccc 1800
251 atccagatgg cccgagttacc aacgagagac tgccggcatc ggcactgaaa ttgacgttct 1860

```

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 08/03/2004
PATENT APPLICATION: US/10/650,274A TIME: 16:55:16

Input Set : A:\650274A.chg.txt
Output Set: N:\CRF4\08032004\J650274A.raw

Please Note:

se of n and/or Xaa have been detected in the Sequence Listing. Please review the
equence Listing to ensure that a corresponding explanation is presented in the <220>
o <223> fields of each sequence which presents at least one n or Xaa.

eq#:2; N Pos. 5712,5713,5715,5718,5724
eq#:10; N Pos. 9161,9182,9183,9186,9187,9189,9191,9195,9196,9208,9209,9210
eq#:10; N Pos. 9211
eq#:23; N Pos. 3146
eq#:24; N Pos. 1093,1094
eq#:35; N Pos. 5350
eq#:39; N Pos. 12642
eq#:43; N Pos. 7478
eq#:65; N Pos. 1000
eq#:68; N Pos. 1263
eq#:71; N Pos. 9617
eq#:72; N Pos. 1568,1603
eq#:87; Xaa Pos. 95,154
eq#:106; Xaa Pos. 41
eq#:125; Xaa Pos. 253
eq#:151; Xaa Pos. 179
eq#:159; Xaa Pos. 11

VERIFICATION SUMMARY

DATE: 08/03/2004

PATENT APPLICATION: US/10/650,274A

TIME: 16:55:16

Input Set : A:\650274A.chg.txt

Output Set: N:\CRF4\08032004\J650274A.raw

15 M:270 C: Current Application Number differs, Replaced Current Application No
15 M:271 C: Current Filing Date differs, Replaced Current Filing Date
25 M:112 C: (48) String data converted to lower case,
112 Repeated in SeqNo=1
221 M:112 C: (48) String data converted to lower case,
112 Repeated in SeqNo=2
316 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:5700
326 M:112 C: (48) String data converted to lower case,
112 Repeated in SeqNo=3
383 M:112 C: (48) String data converted to lower case,
112 Repeated in SeqNo=4
420 M:112 C: (48) String data converted to lower case,
112 Repeated in SeqNo=5
471 M:112 C: (48) String data converted to lower case,
112 Repeated in SeqNo=6
497 M:112 C: (48) String data converted to lower case,
112 Repeated in SeqNo=7
596 M:112 C: (48) String data converted to lower case,
112 Repeated in SeqNo=8
663 M:112 C: (48) String data converted to lower case,
112 Repeated in SeqNo=9
719 M:112 C: (48) String data converted to lower case,
112 Repeated in SeqNo=10
871 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:9120
341 Repeated in SeqNo=10
882 M:112 C: (48) String data converted to lower case,
112 Repeated in SeqNo=11
973 M:112 C: (48) String data converted to lower case,
112 Repeated in SeqNo=12
1152 M:112 C: (48) String data converted to lower case,
112 Repeated in SeqNo=13
1187 M:112 C: (48) String data converted to lower case,
112 Repeated in SeqNo=14
1345 M:112 C: (48) String data converted to lower case,
112 Repeated in SeqNo=15
1391 M:112 C: (48) String data converted to lower case,
112 Repeated in SeqNo=16
1446 M:112 C: (48) String data converted to lower case,
112 Repeated in SeqNo=17
1527 M:112 C: (48) String data converted to lower case,
112 Repeated in SeqNo=18
1575 M:112 C: (48) String data converted to lower case,
112 Repeated in SeqNo=19
1603 M:112 C: (48) String data converted to lower case,
112 Repeated in SeqNo=20
1625 M:112 C: (48) String data converted to lower case,
112 Repeated in SeqNo=21
1695 M:112 C: (48) String data converted to lower case,

VERIFICATION SUMMARY

DATE: 08/03/2004

PATENT APPLICATION: US/10/650,274A

TIME: 16:55:16

Input Set : A:\650274A.chg.txt

Output Set: N:\CRF4\08032004\J650274A.raw

M:112 Repeated in SeqNo=22

L:1839 M:112 C: (48) String data converted to lower case,

M:112 Repeated in SeqNo=23

L:1891 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:3120

L:1927 M:112 C: (48) String data converted to lower case,

M:112 Repeated in SeqNo=24

L:1945 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:1080

L:2021 M:112 C: (48) String data converted to lower case,

M:112 Repeated in SeqNo=25

L:2665 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:5340

L:2976 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:12600

L:3561 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:7440

L:5121 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65 after pos.:960

L:5375 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:68 after pos.:1260

L:5729 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:71 after pos.:9600

L:5770 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:72 after pos.:1560

L:6786 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:87 after pos.:80

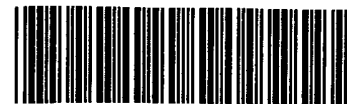
M:341 Repeated in SeqNo=87

L:8010 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:106 after pos.:32

L:9074 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:125 after pos.:240

L:10541 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:151 after pos.:176

L:10922 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:0



IFWO

RAW SEQUENCE LISTING

DATE: 08/03/2004

PATENT APPLICATION: US/10/650,274A

TIME: 12:40:13

Input Set : A:\1073 SEQLIST.txt

Output Set: N:\CRF4\08032004\J650274A.raw

4 <110> APPLICANT: GLENN, MATTHEW
 5 HAVUKKALA, ILKKA J
 6 LUBBERS, MARK WILLIAM
 7 DEKKER, JAMES
 9 <120> TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES,
 10 MATERIALS INCORPORATING THEM, AND METHODS FOR USING
 11 THEM.
 13 <130> FILE REFERENCE: 11000.1073
 C--> 15 <140> CURRENT APPLICATION NUMBER: US/10/650,274A
 C--> 15 <141> CURRENT FILING DATE: 2003-08-28
 15 <160> NUMBER OF SEQ ID NOS: 187
 17 <170> SOFTWARE: FASTSEQ FOR WINDOWS VERSION 4.0

ERRORED SEQUENCES

12378 <210> SEQ ID NO: 187
 12379 <211> LENGTH: 21
 12380 <212> TYPE: DNA
 12381 <213> ORGANISM: ARTIFICIAL SEQUENCE
 12383 <220> FEATURE:
 12384 <223> OTHER INFORMATION: MADE IN A LAB
 12386 <400> SEQUENCE: 187
 C--> 12387 acataaaacc gcatagcaat c
 E--> 12391 2

Does Not Comply
 Corrected Diskette Needed

21

VERIFICATION SUMMARY

DATE: 08/03/2004

PATENT APPLICATION: US/10/650,274A

TIME: 12:40:15

Input Set : A:\1073 SEQLIST.txt

Output Set: N:\CRF4\08032004\J650274A.raw

L:15 M:270 C: Current Application Number differs, Replaced Current Application No
L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:25 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=1
L:221 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=2
L:316 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:5700
L:326 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=3
L:383 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=4
L:420 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=5
L:471 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=6
L:497 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=7
L:596 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=8
L:663 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=9
L:719 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=10
L:871 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:9120
M:341 Repeated in SeqNo=10
L:882 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=11
L:973 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=12
L:1152 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=13
L:1187 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=14
L:1345 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=15
L:1391 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=16
L:1446 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=17
L:1527 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=18
L:1575 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=19
L:1603 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=20
L:1625 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=21
L:1695 M:112 C: (48) String data converted to lower case,

VERIFICATION SUMMARY

DATE: 08/03/2004

PATENT APPLICATION: US/10/650,274A

TIME: 12:40:15

Input Set : A:\1073 SEQLIST.txt

Output Set: N:\CRF4\08032004\J650274A.raw

M:112 Repeated in SeqNo=22
L:1839 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=23
L:1891 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:3120
L:1927 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=24
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L:2665 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:5340
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L:5121 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65 after pos.:960
L:5375 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:68 after pos.:1260
L:5729 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:71 after pos.:9600
L:5770 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:72 after pos.:1560
L:6786 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:87 after pos.:80
M:341 Repeated in SeqNo=87
L:8010 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:106 after pos.:32
L:9074 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:125 after pos.:240
L:10541 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:151 after pos.:176
L:10922 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:0
L:12391 M:254 E: No. of Bases conflict, this line has no nucleotides.